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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte PAUL F. STRUHSAKER and RUSSELL C. MCKOWN

Appeal 2008-1376
Application 09/839,729¹
Technology Center 2600

Decided: December 3, 2008

Before JOSEPH F. RUGGIERO, SCOTT R. BOALICK, and
KARL EASTHOM, *Administrative Patent Judges*.

BOALICK, *Administrative Patent Judge*.

¹ Application filed April 20, 2001. The real party in interest is Access Solutions, Ltd.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134(a) from the final rejection of claims 1-20, all the claims pending in the application. We have jurisdiction under 35 U.S.C. § 6(b).

We reverse.

STATEMENT OF THE CASE

Appellants' invention relates to an apparatus that operates on data signals received at a communication station, such as a base station of a fixed wireless access communication system. (Spec. 16:1-5.)

Claim 1 is exemplary:

1. Apparatus for a communication station operable in a wireless communication system to receive at least first burst data signals transmitted thereto upon at least a first channel by a first sending station, said apparatus comprising:

at least a first demodulator selectively coupled to receive indications of bursts of the first burst data signal, said first demodulator for performing demodulation operations upon the indications received thereat; and

a controller coupled to said first demodulator, said controller for controlling performance of the first demodulator to cause cyclo-stationary filtering of successive bursts of the first burst data signal during demodulation of the first burst data signal by said first demodulator.

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Waters et al.	US 4,932,070	Jun. 5, 1990
Schuchman et al.	US 5,283,780	Feb. 1, 1994
Ganesan et al.	US 5,812,951	Sep. 22, 1998
Kanterakis et al.	US 6,606,341 B1	Aug. 12, 2003 (filed May 4, 1999)

Claims 1, 2, 4, 8-10, 12-14, 18, and 20 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Kanterakis.

Claims 3, 11, 15, and 19 stand rejected under 35 U.S.C. § 103(a) as being obvious over Kanterakis and Ganesan.

Claims 5-7 stand rejected under 35 U.S.C. § 103(a) as being obvious over Kanterakis and Schuchman.

Claims 16 and 17 stand rejected under 35 U.S.C. § 103(a) as being obvious over Kanterakis, Ganesan, and Waters.

ISSUES

(1) Have Appellants shown that the Examiner erred in rejecting claims 1, 2, 4, 8-10, 12-14, 18, and 20 under 35 U.S.C. § 102(e)?

(2) Have Appellants shown that the Examiner erred in rejecting claims 3, 5-7, 11, 15-17, and 19 under 35 U.S.C. § 103(a)?

PRINCIPLES OF LAW

Anticipation is established when a single prior art reference discloses expressly or under the principles of inherency each and every limitation of the claimed invention. *Atlas Powder Co. v. IRECO Inc.*, 190 F.3d 1342, 1347 (Fed. Cir. 1999); *In re Paulsen*, 30 F.3d 1475, 1478-79 (Fed. Cir. 1994).

"Section 103 forbids issuance of a patent when 'the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.'" *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1734 (2007). "[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006).

During examination of a patent application, a claim is given its broadest reasonable construction consistent with the specification. *In re Prater*, 415 F.2d 1393, 1404-05 (CCPA 1969). "[T]he words of a claim 'are generally given their ordinary and customary meaning.'" *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (internal citations omitted). The "ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application." *Id.* at 1313.

ANALYSIS

Appellants argue that the Examiner erred in rejecting claims 1-20. Reviewing the record before us, we agree. In particular, we find that the Appellants have shown that the Examiner failed to make a *prima facie* showing of anticipation with respect to claims 1, 2, 4, 8-10, 12-14, 18, and 20 and failed to make a *prima facie* showing of obviousness with respect to claims 3, 5-7, 11, 15-17, and 19.

Appellants argue that Kanterakis does not teach "cyclo-stationary filtering," as recited in independent claims 1, 13, and 20. (App. Br. 9-11; Reply Br. 2-4.) In particular, Appellants argue that the claim term "cyclo-stationary filtering" must be construed in light of the Specification, which teaches:

Cyclo-stationary adaptive filtering (CSAF) is performed upon the uplink data burst signal. CSAF is a signal processing technique to allow adaptive filters to operate in environments that exhibit cyclic/deterministic channel environments. Each burst of the data signal transmitted by a subscriber station forms a separate and distinct stationary channel environment. Each of the channels is processed by configuring the receive portion of the base station with a matched filter forming the equalizer, such as equalizers 303 and 305 (shown in FIGURE 3) for the specific channel. The values forming the profiles stored at the memory device of the controller are used to weight the equalizer, as appropriate.

(Spec. 32:7-18.) Given this definition in the Specification, Appellants argue that Kanterakis does not teach "cyclo-stationary filtering" because it does not teach the application of weights computed from prior data segments -- i.e., Kanterakis does not teach that its programmable matched filter 315 uses

weights stored at a memory device of the controller 319. (App. Br. 9-11; Reply Br. 4.) We agree.

In rejecting Appellants' arguments regarding the interpretation of "cyclo-stationary filtering," the Examiner stated that "the features upon which applicant relies . . . are not recited in the rejected claim(s)." (Ans. 13.) The Examiner then found that "Kanterakis teaches filtering of successive bursts according to the burst type and demodulating the bursts accordingly; therefore, disclosing cyclo-stationary filtering of successive bursts." (*Id.*) However, the Examiner's claim interpretation ignores Appellants' definition of "cyclo-stationary filtering" taught in the Specification and effectively reads the term "cyclo-stationary" out of the claims. Thus, the Examiner's interpretation of "cyclo-stationary filtering" is not reasonable and is not consistent with the Specification. Furthermore, the Examiner has not shown, and we do not find, where Kanterakis teaches that its matched filter 315 uses stored weights, as required by the properly interpreted claim.

Accordingly, we conclude that Appellants have shown that the Examiner erred in rejecting independent claims 1, 13, and 20 under 35 U.S.C. § 102(e). Claims 2, 4, 8-10, 12, 14, and 18 depend from either independent claim 1 or independent claim 13, and we conclude that Appellants have shown that the Examiner erred in rejecting these claims under 35 U.S.C. § 102(e) for the reasons discussed with respect to independent claims 1 and 13.

Dependent claims 3, 5-7, 11, 15-17, and 19 were rejected as being obvious over Kanterakis in various combinations with Ganesan, Schuchman, and Waters. However, Ganesan, Schuchman, and Waters, alone or in combination, do not remedy the deficiencies of Kanterakis discussed with

respect to independent claims 1 and 13. Therefore, we conclude that Appellants have shown that the Examiner erred in rejecting dependent claims 3, 5-7, 11, 15-17, and 19, each of which depends from either claim 1 or 13, for the reasons discussed with respect to claims 1 and 13.

CONCLUSION

We conclude that:

- (1) Appellants have shown that the Examiner erred in rejecting claims 1, 2, 4, 8-10, 12-14, 18, and 20 under 35 U.S.C. § 102(e).
- (2) Appellants have shown that the Examiner erred in rejecting claims 3, 5-7, 11, 15-17, and 19 under 35 U.S.C. § 103(a).

DECISION

The rejection of claims 1-20 is reversed.

REVERSED

ack

cc:

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